A. F. B.
Resources for teachers of blind with sighted children

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PUBLICATIONS

Educational Series • No. 9

Resources for Teachers of Blind with Sighted Children

Compiled by

GEORGIE LEE ABEL

American Foundation for the Blind
15 West 16th Street, New York 11, N. Y.

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American Foundation for the Blind
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Price 75 cents

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Introduction

This manual has been prepared for the use of teachers in public schools providing educational programs for blind children. It has been compiled largely as a result of questions received from administrators planning new programs in the public schools and from teachers assigned to these programs.

It is not intended as an answer to questions concerning the philosophy of public school education of blind with sighted children in public and private schools. We assume that a program has been established and that teachers are attempting to find immediate answers in regard to facilities and equipment. Therefore, only suggestions that relate to equipment and resources are presented. Naturally some philosophy concerning the use of equipment and facilities, or the need for new development in various areas of instruction, forms the bases for the brief discussions found in the different sections. In addition, certain statements of philosophy and summaries of legislative measures and a bibliography are included in the appendix for those who wish to gain some additional help through further reading.

It is important to note in reading this material that it has been developed for teachers who are willing to use existing equipment and who will also search for new ideas concerning new equipment needs. Far too many pieces of equipment in schools today are unused, largely because the new teacher is not sufficiently familiar with the reasons for their development or the benefits to be derived when they are used correctly. Careful examination of guides and descriptions of new equipment can be valuable to the alert teacher at all times. This is both good economy and excellent practice in education.

Resourcefulness is very much called for in a teacher of blind children. This publication would defeat its own purpose if it served as a crutch or checklist for equipment. It is to be hoped that by its use teachers will find new curriculum aids and develop new devices through experimentation. There is much work to be done in this direction and the classroom teacher who knows the children best is best equipped to add enrichment to the school program.

The various lists included are purely suggestive. They are representative of those materials which have been useful to other teachers and are limited only to those items which can be purchased outright from a definite manufacturer. There are other devices which are not available through a distributing agency or which are presently in the process of development. These items must await future publication.

This publication was previously developed as a mimeographed bulletin and circulated to teachers of blind children in all of the public school programs in the country. Their response and their expressed need for more information have prompted the American Foundation for the Blind to republish it in this form with certain revisions and additions. Where prices are given, they are submitted as of date of publication and are therefore subject to change. Teachers are urged to secure the most up-to-date catalogs from all supply houses and manufacturers mentioned.

The American Foundation for the Blind is pleased to make this information available to teachers in public schools offering educational programs for blind with sighted children. If it answers some of the questions which face teachers of the blind, especially in isolated school situations throughout the country, it will have served its purpose. Suggestions and constructive criticisms from all teachers who use it are welcome.

The compiler wishes to express appreciation to all teachers who voiced their needs in a way that prompted the development of this booklet. Special thanks are offered to Miss Dorothy L. Misbach, Supervisor, Educational Services, New Jersey Commission for the Blind, for her work on aids to be found in the general supply houses. Appreciation is expressed also to Mr. Charles Ritter, Consultant on Special Aids and Appliances, American Foundation for the Blind, and to Mr. James Fontaine, Supervisor, Special Services, American Foundation for the Blind, for their general assistance and specific help in the areas of audio aids, magnifiers, and devices and equipment used in the education of blind children.

The Teacher in a Public School Setting

The teacher of blind children in a public school setting is asked not only to be a good teacher in the specialized program, but also to interpret the program to the other teachers in the system, to the administrators at the school, and to the citizens of the community. This interpretation, made through the correct channels of administration and supervision, is of the greatest importance to a better understanding of the entire program.

Such a teacher should also be familiar with resources in the community as they apply to *all* children, and with the specialized services offered blind children by various organizations. It is of prime importance that he understand the development of the program at the residential school for the blind serving his state. An understanding of and a cooperative working relationship with the residential school will benefit all blind children of the state. In addition, the public school teacher should always be ready to give generous explanations of the local public school program to the state residential school authorities. A free exchange of ideas can contribute much to the screening and placement of blind children on an individual basis.

In developing programs for blind children, teachers and administrators must have the wisdom to use the best possible services at all times and the courage to refuse those services which are not constructive. It is quite possible to give a tactful reason for not using a service, and through an honest appraisal of more effective organizations, the desired improvements may result.

As a specialist with preparation and experience, the teacher may be called upon at times to show some interest in research and to cooperate with related organizations wishing to undertake various types of studies. For this reason, certain reference tools should be available in the library facilities of the department. A list of such references is submitted here as well as a list of organizations that may give aid of various kinds. Most of the organizations listed have available on request, catalogs or booklets listing their publications and services.

REFERENCES

American Association of Instructors of the Blind—*Proceedings,* issued biennially, price $3.50

American Association of Workers for the Blind—*Proceedings,* issued annually, price $4.00

American Foundation for the Blind. *AFB Publications,* a series of pamphlets and booklets, price . . . . $3.00 per year

————. *Books About the Blind;* A biographical guide to literature relating to the blind, price $5.00

————. *Directory of Activities for the Blind in the United States and Canada,* price $2.00

International Journal for Education of the Blind—a quarterly periodical. New York Institute for the Education of the Blind, 999 Pelham Parkway, New York 67, New York. Price. . . . .$2.00 per year

New Outlook for the Blind—a monthly periodical. American Foundation for the Blind. Price . . . . $2.00 per year

ORGANIZATIONS

Association for the Aid of Crippled Children, 345 East 46th Street, New York, New York.

The International Council for Exceptional Children, 1201 16th Street, N.W. Washington 6, D.C.

Library of Congress, Division for the Blind, Washington 25, D.C.

National Society for Crippled Children and Adults, 11 South LaSalle Street, Chicago 3, Illinois.

National Society for the Prevention of Blindness, 1790 Broadway, New York, New York.

Recording for the Blind, 36 West 44th Street, New York, New York.

Office of Education, Division of Exceptional Children and Youth, Department of Health, Education, and Welfare, Washington 25, D.C.

Office of Education, Division of Elementary and Secondary Schools, Department of Health, Education, and Welfare, Washington 25, D.C.

Office of Vocational Rehabilitation, Department of Health, Education, and Welfare, Washington 25, D.C.

Volunteers Service for the Blind, Inc., 332 South 13th Street, Philadelphia 7, Pennsylvania.

The Classroom

Any *good* regular classroom is suited to the education of blind children. It may be said, however, that the lighting system in the case of children with even the minimum of useful vision, is more important than with children with normal sight. Like all other growing boys and girls, children with very limited vision often drop their supplies. They should have the best light possible to locate their tools and make the best use of them. Special care must be taken to use chalk boards which do not absorb too much light, yet which provide sufficient contrast for poor vision. It is also important to place bulletin boards well within eye range of those children who largely depend on their vision and within an arm's reach of the blind children.

Any equipment which can be easily upset must be placed in the room so that it is out of the line of travel to and from the doorways. The children can learn to be careful in exploring and they can be taught the actual physical layout of the room. If the placement of the equipment is logical, the child will know just where he can expect to find things and he can exert caution in locating them. He can also learn to return used equipment to its proper place. This is excellent training for all children, but it is especially necessary for blind children if they are to grow up to be independent and efficient.

The furniture should be of correct height for the children although large and sturdy enough to take care of necessary equipment and also compact enough to conserve important floor space. Racks or special tables should be utilized for such items as the Talking Book reproducer or the dictionary or any other work of many volumes. Blind children need extra motivation and encouragement to do research and since lifting heavy and cumbersome books is not an attractive task, the equipment, at least, must be easily accessible. When the floors are suitable, it is an excellent idea to have one Talking Book reproducer on a table with rollers, so that the child may roll the machine over to his typewriter, or, if he is working in braille, close to his desk. All of the reproducers should be equipped with headphones so that the children can work individually without disturbing the others in the room.

It is very important that there be sufficient space in the classroom for storing braille books so that they may stand upright, as stacking them might damage the braille dots. Children must be taught early to care for their books and to place them in the desk in such a way that reading may become a comfortable and a happy experience. Teachers can be very helpful to administrators and supervisors in pointing out the importance of bookcases which are strong, large enough to hold the books, and of correct height for the children who use them.

In short, the selection of the classroom and its equipment should reflect the best thinking concerning the needs of *all* children. This includes good lighting, good ventilation, easy accessibility to exits, adequate recreational space, rest rooms, etc. Special consideration should be given to the following:

Sufficient bulletin boards and chalk boards placed within eye reach of children with limited residual vision, and within arm reach of blind children.

Ample and sturdy bookshelves for braille books and Talking Books which require more space than is usually found in a regular classroom.

Sturdy flat top table which can be used for art work, for braille writing, or braille reading, etc.

Sturdy movable chairs adjustable to the needs of the children.

Small table with attached rollers for the movement of the Talking Book Reproducer from one part of the room to another.

For each child a desk which is the appropriate size for him, and which provides sufficient space for housing his reading and writing equipment. The following desk is highly recommended:

Compartment Desk—Milton Bradley Company, 17 Fordham Road, Allston, Boston 34, Massachusetts.

9343—A new type school desk that is becoming increasingly popular. Features an open box design plus a shelf and a deep, spacious, open-end compartment; made with top quality hardwood throughout and sturdily constructed to insure lasting stability. Natural or School Brown finish. Specifications: Top—32 x 20", 7/8" thick; Legs—1 5/8", rounded edges; metal glides; 29½" in height; tongue and groove construction; Open Box—19 x 16"; Compartment—7 x 16"; Shelf—7 x 13".

This desk was designed originally for Mr. Eber L. Palmer, Superintendent, New York State School for the Blind, Batavia, New York.

Devices and Equipment Used in the Education of Blind Children

The addresses for supply houses for specialized equipment are listed directly below. If an additional distributor has manufactured something of special significance to the education of blind children, the address of the company is listed with the product described.

American Foundation for the Blind, Inc., 15 West 16th Street, New York 11, New York

American Printing House for the Blind, Inc., 1839 Frankfort Avenue, Louisville 6, Kentucky

Braille Institute of America, 741 North Vermont Avenue, Los Angeles 29, California

Howe Press of Perkins Institution, 175 North Beacon Street, Watertown 72, Massachusetts

Note: Request the most recent catalog from all supply houses. Prices are subject to change.

Braille Books and Talking Book Recordings

Most of the press braille books and Talking Book recordings used in the education of blind children are available from the American Printing House for the Blind. The teacher should work through the proper channels to keep in touch with the most recent publications of the Printing House. A summary of the legislation regarding school books and appliances provided by the American Printing House for the Blind is found in the appendix together with a statement of procedures to be taken to obtain these services.

Teachers should also consult possible volunteer groups of braillists and volunteer recording groups who are often willing to braille or record current material which parallels the assignments in the regular inkprint books. These groups provide excellent sources of help in furnishing comparable text material not otherwise available. Furthermore, it is very important that parents encourage their blind children to enjoy reading braille books and Talking Book recordings of special interest to them. Teachers can help parents by discussing with them the importance of leisure time reading, and they can work together in making possible current material available both for pleasure and necessary reference reading for the children. Again, volunteer groups of braille transcribers and recorders may be called upon to add to the list of pleasure reading. These groups are usually happy to offer their services. They will look to the teacher who knows the reading needs of the children for consultation and advice in the selection of material as well as in the preparation of certain types of binding and labels.

The original Pratt-Smoot law of 1931 providing Federal funds under the administration of the Library of Congress for the production of books for the distributing libraries for the blind, limited the use of these libraries to the adult blind. An amendment of 1952 makes the services of these libraries available to blind children over five years of age. Thus braille books and Talking Book records may now be borrowed by blind children who should be encouraged to take advantage of these library facilities just as other children secure books from their own community library. Teachers should point out to the parents these new facilities and call their attention to the list of the twenty-eight distributing libraries given below. A statement from the Library of Congress regarding these provisions is included in the appendix. The teacher may also need to point out to the parents the importance of caring for the equipment, of returning the records and braille books in good order, and of having ample space for storage of large equipment in the child's room.

The Library of Congress is working with a committee of the American Library Association with some consultative help from representatives from the American Foundation for the Blind, in an effort to select suitable titles for children. When blind children register with the libraries serving their region they will automatically receive the *Braille Book Review* and the *Talking Book Topics* listing all new material in the libraries. It is important that the teachers check with the libraries and show some interest in all new acquisitions. They should, from time to time, inform parents of new titles that may be timely and useful.

As a result of the new amendment blind children may now have a Talking Book reproducer on loan which they may keep in their own homes. They should all avail themselves of this privilege. A list of the agencies from which Talking Book reproducers may be obtained is found below. Talking Book reproducers are also listed under Audio Aids.

DISTRIBUTING LIBRARIES—BOOKS FOR THE BLIND

ALABAMA—Kriegshaber Library for the Blind, (Georgia State Department of Education), 232 Luckie Street, N.W., Atlanta, Ga.
ALASKA—Seattle Public Library, Library for the Blind, 731 N. 35th St., Seattle 4, Wash.
ARIZONA—Braille Institute Free Circulating Library, 721 N. Vermont Ave., Los Angeles 29, Calif.
ARKANSAS—Library Extension Division, Oklahoma State Library, 109 & 331 State Capitol, Oklahoma City 5, Okla.
CALIFORNIA (*northern*)—California State Library, Books for the Blind, Library—Courts Building, Sacramento 9, Calif.
CALIFORNIA (*southern*)—Braille Institute Free Circulating Library, 721 N. Vermont Ave., Los Angeles 29, Calif.
COLORADO—Denver Public Library, Books for the Blind, 90 Lowell Blvd., Denver 2, Colo.
CONNECTICUT—New York Public Library, Library for the Blind, 166 Ave. of the Americas. New York 12, N. Y.
DELAWARE—Free Library of Philadelphia, Logan Square, Philadelphia 3, Pa.
DISTRICT OF COLUMBIA—Library of Congress, Division for the Blind, Washington 25, D. C.
FLORIDA—Florida Talking Book Library, P.O. Box 2298, Daytona Beach, Fla.
GEORGIA—Kriegshaber Library for the Blind, (Georgia State Department of Education), 232 Luckie St., N.W., Atlanta, Ga.
HAWAII—Library of Hawaii, Dept. for the Blind, Honolulu 13, T. H.
IDAHO—Library Association of Portland, Library for the Blind, 801 S.W. Tenth Ave., Portland, Oreg.

ILLINOIS (*north of Springfield*)—Chicago Public Library, Department of Books for the Blind, 4544 Lincoln Ave., Chicago 25, Ill.

ILLINOIS (*south, including Springfield*)—Free Circulating Library for the Blind, c/o Illinois Braille and Sight-Saving School, Jacksonville, Illinois

INDIANA—Indiana State Library, Service for the Blind, 140 N. Senate Ave., Indianapolis 4, Ind.

IOWA—Free Circulating Library for the Blind, c/o Illinois Braille and Sight-Saving School, Jacksonville, Ill.

KANSAS—Wolfner Library for the Blind, St. Louis Public Library, 3844 Olive St., St. Louis, Mo.

KENTUCKY—Cincinnati Library Society for the Blind, 6990 Hamilton Ave., Cincinnati 31, Ohio

LOUISIANA—New Orleans Public Library, Department for the Blind, 2940 Canal Street, New Orleans 27, La.

MAINE—Perkins Institution Library, Watertown 72, Mass.

MARYLAND—Library of Congress, Division for the Blind, Washington 25, D. C.

MASSACHUSETTS—Perkins Institution Library, Watertown 72, Mass.

MICHIGAN (*outside of Wayne County*)—Michigan State Library for the Blind, 924 Houghton St., Saginaw, Mich.

MICHIGAN (*Wayne County*)—Wayne County Library, Department for the Blind, 3661 Trumbull Ave., Detroit 8, Mich.

MINNESOTA—Minnesota Braille and Sight-Saving School Library, Faribault, Minn.

MISSISSIPPI—New Orleans Public Library, Department for the Blind, 2940 Canal St., New Orleans 27, La.

MISSOURI—Wolfner Library for the Blind, St. Louis Public Library, 3844 Olive St., St. Louis 8, Mo.

MONTANA—Seattle Public Library, Library for the Blind, 731 N. 35th St., Seattle 3, Wash.

NEBRASKA—Nebraska Public Library Commission, State Capitol, Lincoln 9, Nebr.

NEVADA—California State Library, Books for the Blind, Library-Courts Building, Sacramento 9, Calif.

NEW HAMPSHIRE—Perkins Institution Library, Watertown 72, Mass.

NEW JERSEY—Free Library of Philadelphia, Logan Square, Philadelphia 3, Pa.

NEW MEXICO—Denver Public Library, Books for the Blind, 90 Lowell Blvd., Denver, Colo.

NEW YORK (*other than Greater N. Y. City and Long Island*)—New York State Library, Library for the Blind, 226 Elm St., Albany 2, N. Y.

NEW YORK (*Greater N. Y. City and Long Island*)—New York Public Library, Library for the Blind, 166 Ave. of the Americas, New York 12, N. Y.

NORTH CAROLINA—Library of Congress, Division for the Blind, Washington 25, D. C.

NORTH DAKOTA—Minnesota Braille and Sight-Saving School Library, Faribault, Minn.

OHIO (*south of Columbus*)—Cincinnati Library Society for the Blind, 6990 Hamilton Ave., Cincinnati 31, Ohio

OHIO (*north, including Columbus*)—Cleveland Public Library, Library for the Blind, 325 Superior Ave., N.E., Cleveland 14, Ohio

OKLAHOMA—Library Extension Division, Oklahoma State Library, 109 & 331 State Capitol, Oklahoma City 5, Okla.

OREGON—Library Association of Portland, Library for the Blind, 801 S.W. Tenth Ave., Portland 5, Oreg.

PENNSYLVANIA (*east of Harrisburg*)—Free Library of Philadelphia, Logan Square, Philadelphia 3, Pa.

PENNSYLVANIA (*west, including Harrisburg*)—Carnegie Library of Pittsburgh, Library for the Blind, 4400 Forbes St., Pittsburgh 13, Pa.

PUERTO RICO—New York Public Library, Library for the Blind, 166 Ave. of the Americas, New York 12, N. Y.

RHODE ISLAND—Perkins Institution Library, Watertown 72, Mass.

SOUTH CAROLINA—Library of Congress, Division for the Blind, Washington 25, D. C.

SOUTH DAKOTA—Minnesota Braille and Sight-Saving School Library, Faribault, Minn.

TENNESSEE—Cincinnati Library Society for the Blind, 6990 Hamilton Ave., Cincinnati 31, Ohio

TEXAS—Texas State Library, State Capitol, Austin, Texas

UTAH—Free Public Library, Books for the Blind, 167 Motor Ave., Salt Lake City 1, Utah

VERMONT—New York State Library, Library for the Blind, 226 Elm St., Albany 2, N. Y.

VIRGINIA—Library of Congress, Division for the Blind, Washington 25, D. C.

VIRGIN ISLANDS—New York Public Library, Library for the Blind, 166 Ave. of the Americas, New York 12, N. Y.

WASHINGTON—Seattle Public Library, Library for the Blind, 731 N. 35th St., Seattle 3, Wash.

WEST VIRGINIA—Carnegie Library of Pittsburg, Library for the Blind, 4400 Forbes St., Pittsburgh 13, Pa.

WISCONSIN—Chicago Public Library, Department of Books for the Blind, 4544 Lincoln Ave., Chicago 25, Ill.

WYOMING—Free Public Library, Books for the Blind, 167 Motor Ave., Salt Lake City 1, Utah

TALKING BOOK MACHINE LENDING AGENCIES

ALABAMA—Adult Blind Department, Alabama Institute for Deaf and Blind, 718 Cedar Street, Talladega, Ala.

ALASKA—Seattle Public Library, Library for the Blind, 731 N. 35th St., Seattle 4, Wash.

ARIZONA—Division of Public Assistance and Services, Department of Public Welfare, 5610 S. Central Ave., Phoenix, Ariz.

ARKANSAS—Department of Public Welfare, Services for the Blind, Little Rock, Ark.

CALIFORNIA—California State Library, Books for the Blind, Sacramento 9, Calif.

COLORADO—Division of Services for the Blind, State Department of Public Welfare, State Capitol Annex, Denver 2, Colo.

CONNECTICUT—Connecticut Board of Education of the Blind, 165 Capitol Ave., Hartford, Conn.

DELAWARE—Delaware Commission for the Blind, 305 W. 8th St., Wilmington 22, Del.

DISTRICT OF COLUMBIA—Columbia Lighthouse for the Blind, 500 9th St., S.W., Washington 24, D. C.

FLORIDA—Florida Talking Book Library, P.O. Box 2298, Daytona Beach, Fla.

GEORGIA—State Department of Education Warehouse, Services for the Blind, 232 Luckie St., N.W., Atlanta, Ga.

HAWAII—Territorial Bureau of Sight Conservation and Work with the Blind, 1390 Miller St., Honolulu 13, T. H.

IDAHO—Services for the Blind, Department of Public Assistance, 103 S. 9th St., Boise, Idaho

ILLINOIS—Illinois Industrial Home and Division for the Blind, 1900 S. Marshall Blvd., Chicago 23, Ill.

INDIANA—Board of Industrial Aid and Vocational Rehabilitation for the Blind, 536 W. 30th St., Indianapolis 23, Ind.

IOWA—Iowa State Commission for the Blind, State House, Des Moines 19, Iowa

KANSAS—Division of Services for the Blind, State Department of Social Welfare, 801 Harrison St., Topeka, Kans.

KENTUCKY—Kentucky Workshop for the Blind, 2007 Frankfort Ave., Louisville 6, Ky.

LOUISIANA—Division for the Blind and Sight Conservation, State Department of Public Welfare, Capitol Annex, Baton Rouge 4, La.

MAINE—Division of Services for the Blind, State Department of Health and Welfare, State House, Augusta, Maine

MARYLAND—Maryland Workshop for the Blind, 601 N. Fulton Ave., Baltimore 17, Md.

MASSACHUSETTS—Massachusetts Division of the Blind, Department of Education, 90 Tremont St., Boston 8, Mass.

MICHIGAN—Michigan State Library for the Blind, 924 Houghton St., Saginaw, Mich.

MICHIGAN—Wayne County Library, 3661 Trumbull Ave., Detroit 8, Mich.

MINNESOTA—Services for the Blind, State Dept. of Public Welfare, 117 University Ave., St. Paul 1, Minn.

MISSISSIPPI—Division for the Blind, State Department of Public Welfare, Woolfolk State Office Bldg., Jackson 5, Miss.

MISSOURI—Service Club for the Blind, Inc., 4312 Olive St., St. Louis 8, Mo.

MONTANA—Services for the Blind, State Department of Public Welfare, 515 N. Ewing, Helena, Mont.

NEBRASKA—Nebraska School for the Blind, 10th St. and 10th Ave., Nebraska City, Nebr.

NEVADA—California State Library, Books for the Blind, Library-Courts Building, Sacramento 9, Calif.

NEW HAMPSHIRE—Division of Blind Services, Department of Public Welfare, State House Annex, Concord, N. H.

NEW JERSEY—New Jersey State Commission for the Blind, 1060 Broad St., Newark 2, N. J.
NEW MEXICO—Division of Services for the Blind, State Department of Public Welfare, 408 Galistes, Santa Fe, N. M.
NEW YORK—New York State Commission for the Blind, 270 Broadway, New York 7, N. Y.
NORTH CAROLINA—North Carolina State Commission for the Blind, Mansion Park Building, Raleigh, N. C.
NORTH DAKOTA—North Dakota State School for the Blind, Bathgate, N. D.
OHIO—Services for the Blind, Division of Social Administration, 513 East Town St., Columbus 15, Ohio
OKLAHOMA—Services for the Blind, Vocational Rehabilitation Division, 1141 N. Robinson, Oklahoma City 3, Okla.
OREGON—Oregon Commission for the Blind and Prevention of Blindness, 645 S.E. Ankeny St., Portland 14, Oreg.
PENNSYLVANIA—State Council for the Blind, 17 South Front St., Harrisburg 2, Pa.
PUERTO RICO—Instituto Loaíza Cordero de Níños Ciegos, Avenida Fernandez Juncos, Santurce, P. R.
RHODE ISLAND—Bureau for the Blind, State Dept. of Social Welfare, 24 Exchange Place, Providence 3, R. I.
SOUTH CAROLINA—Division for the Blind, State Department of Public Welfare, Wade Hampton Office Bldg., Columbia, S. C.
SOUTH DAKOTA—South Dakota Service to the Blind, State Capitol, Pierre, S. D.
TENNESSEE—Division of Services for the Blind, Department of Public Welfare, State Office Bldg., Nashville, Tenn.
TEXAS—State Commission for the Blind, Land Office Building, Austin 14, Texas
UTAH—Utah Commission for the Adult Blind, 309 E. First South St., Salt Lake City 2, Utah
VERMONT—Division of Services for the Blind, Department of Social Welfare, 128 State St., Montpelier, Vt.
VIRGINIA—Virginia Commission for the Visually Handicapped, 3003 Parkwood Ave., Richmond 21, Va.
VIRGIN ISLANDS—Department of Social Welfare, Charlotte Amalie (St. Thomas), V. I.
VIRGIN ISLANDS—Department of Public Welfare, Christiansted (St. Croix), V. I.
WASHINGTON—Training Center for the Blind, 104 12th Ave., Seattle 22, Wash.
WEST VIRGINIA—Divisions for Conservation of Vision and Prevention of Blindness, State Department of Public Assistance, State Office Building, Charleston 5, W. Va.
WISCONSIN—Services for the Blind, Division of Public Assistance, 2385 N. Lake Drive, Milwaukee 11, Wis.
WYOMING—Division for Deaf and Blind, Department of Education, Capitol Bldg., Cheyenne, Wyo.

Specialized Equipment

BRAILLE WRITING EQUIPMENT

Teachers of blind children have a real challenge in presenting braille writing in an interesting and attractive manner. To begin with, the wise teacher must recognize the readiness for writing in the case of each individual child. Braille writing, under the best conditions, can present problems in physical fatigue, therefore, all labor saving devices for the use of equipment and in the conservation of space are important. The teacher can, through systematic observation, help the child in the best use of his equipment and correct poor habits in writing as they occur, rather than wait until poor workmanship methods have been established. It is important that drill in writing should not be overemphasized. Meaningful experiences with braille writing for a purpose, in all of the activities of the classroom, provide the blind child with sound motivation and a logical use of the skill of writing.

The braillewriter is recommended for all beginners or newly blinded older students. If at all possible, children should have access to the writer for all writing throughout the first three or four grades, unless the school schedule dictates an earlier use of the slate. If the classroom functions as a resource room, children can return to this room for much of the written work in the early grades. Again, the time at which the slate is introduced, should depend upon the readiness of each child for the mastery of a device which requires not only coordination in writing, but also greater skill in coordinating the writing activity with other activities, such as braille reading, or the use of the slate in number activities or music.

It is impossible to set up an exact list of equipment necessary, as children vary in the use they make of the items and in their ability to share equipment through careful planning in their study habits. However, the following is suggested: (1) Every child should have the use of a braillewriter during the first three grades, or easy access to one which he can share with one or two other students, until more writers may be secured. (2) As each child learns to use a braillewriter in a functional manner, he should be provided with a braille slate and stylus. As soon as he finds it necessary to his work in his various classes, club activities, and in his home, he should have a pocket slate, which can be fastened to his notebook or his briefcase.

A. Braille Paper

Many local agencies can supply braille paper. The following agencies will fill mail orders:

1. *American Printing House for the Blind*

Braille paper is sold in units of 3 lbs. each only, postpaid—Paper sizes: 8 x 12; 9 x 12; 10 x 12	$1.00
Pencil-writing Paper—white braille book paper, embossed with heavy guide lines ½ in. apart, sheets 10¼ x 8¼ in., in pads of 165 sheets each	1.00

2. *Braille Institute of America*

3. *Howe Press of Perkins Institution*

Standard Weight Manila	*Per Ream*
8 x 10½	$1.95
9 x 11	2.30
11 x 11½	2.85
Lightweight correspondence manila 8 x 10½ and 9 x 11	1.30

B. Braille Slates

1. *American Foundation for the Blind*

Giant Dot Braille Slate—2 line, 15 cell guide providing 14 lines	$6.10
Interpoint Desk Slate—for two side writing—22 line, 23 cell 10¾ x 6¾ in—weight 13½ oz. all aluminum	3.00
Interpoint Pocket Slate—8 line, 18 cell—3⅝ x 5 3/16 in.	2.00
Tuckaway Stylus	.35
Replacement points for tuckaway	.15

2. *American Printing House for the Blind*

Desk Slate—4 line, 37 cell (shipping weight 3 lbs.)	$3.93
Desk Slate—4 line, 27 cell (shipping weight 2 lbs.)	3.17
Pocket Slate—4 line, 28 cell (shipping weight 7 oz.)	1.91
Postcard Slate—4 line, 19 cell (shipping weight 6 oz.)	1.56
Styli (one included with each slate) each 12¢; per dozen	1.31

3. *Howe Press of Perkins Institution*

Desk Slate—Brass guide with plywood board—12½ x 7½ in. 4 line 36 cell—Model 13	$3.00
Pocket Slate—4 line, 24 cell—Model 9, aluminum	1.65
Pocket Slate—4 line, 27 cell—Model 1, aluminum	1.65
Pocket Slate—4 line, 27 cell—Model 11, brass	1.65

Postcard Slate—6 line, 19 cell—Model 2, aluminum	1.65
Eraser (wood)	.10

NOTE: All slates are supplied with stylus.

C. Braillewriters

1. *American Printing House for the Blind*

New Hall Braillewriter

A medium-weight relatively inexpensive machine which produces standard size braille. Developed originally for use by the children and teachers in the schools and classes for the blind, the machine is easy to operate and quite rugged in construction. It has been equipped with a minimum of accessory parts in order to make it as simple to operate and as trouble-free as possible.

Two models of this braillewriter are available which are identical in operation but have different length carriages. The regular model employs a sheet no wider than 10¾ in. and writes up to 39 cells; the long-carriage model will accommodate an 11½ in. width paper and will write 41 cells.

There is a carriage release, backspacer and a right-hand margin stop with 10 adjustments. The bell is set to ring at the 31st cell on the regular model and at the 33rd cell on the long-carriage machine. The machines have a carriage lock which prevents damage in shipment or transport. Each writer is mounted in a fibreboard carrying case, and the price of the case is included in the cost, which also covers postage in the United States.

Standard Model New Hall Braillewriter	$52.55
Long-Carriage Model New Hall Braillewriter	55.55

2. *Beutler, Inc.,* 457 West Broadway, New York 12, N. Y.

The A. & S. Braillewriter

This writer is equipped with a detachable aluminum plate, that may easily be fitted behind the carriage to facilitate reading up to the last character which has been written. The paper is inserted beneath a hinged holder on the roll and is locked in place by pins on the flap when the paper is rolled in. At the end of the page, the holder is released by means of serrated levers at each end of the roll. This makes it possible to reinsert the paper accurately. Both right and left margin stops are adjustable. Paper up to 9⅞ in. in width may be used. A wide carriage model will be available shortly.

There is a carriage release and a backspacer. The machine is about 13½ in. wide, 10 in. deep and 4½ in. high. Weight, with laminated wooden base, 7 lbs., complete with metal carrying case and felt pad for deadening noise.

Price for complete standard unit, f.o.b. New York . . . $65.50

3. *Braille Institute of America*

Atkinson Model Portable Braille Typewriter

"This machine weighs 10 lbs. without case; 13 lbs. with case which is an indispensable component of the machine. The case is 6 x 14 in., with space enough for one lb. of braille paper inside the lid. The machine is semi-noiseless; the roller bearing carriage contributes to ease and speed in operation, eliminates noise. The improved key mechanism insures light, speedy action and a full round dot without undue strain on the fingers. The styli mechanism permits worn stylus to be adjusted, insuring uniformity in height of dots. The page can be reinserted for corrections without crushing of the dots. The machine accommodates paper nine inches wide on a flat, horizontal basis. There is no curling of paper around rollers or into tubes. The carriage table forms a smooth, flat surface on which a full braille page or any portion thereof can be read by touch or sight, without removing paper from the writer. Conventional features such as line spacer, backspacer, marginal controls and carriage release are located where any typist would expect to find them."—*Outlook for the Blind,* January 1950

Price on request

4. *Howe Press of Perkins Institution*

Perkins Brailler

"The Perkins Brailler is manufactured by the Howe Press with the cooperation of the American Foundation for the Blind. . . . It is almost wholly enclosed in aluminum with a built-in carrying handle. For most purposes a carrying case is unnecessary. It weighs approximately 10 lbs. A light embossing unit moves across the page, eliminating the need of a movable paper carriage. This gives a rugged compactness so that the working space required is only 15¼ x 9 in., which is the over-all size of the writer. There are very few projections, and these are strong enough to stand reasonably hard knocks. Paper up to 11¾ in. by 14 in. may be used with forty-two cells to the line. The mechanism locks silently when the paper is fully inserted, when the right margin is reached and when the last line is completed. Except for margin stops no adjustments are needed at any time for any size sheets. Each character may be read as soon as embossed. The key action is quiet and requires surprisingly little effort. Dots in a cell are produced automatically of uniform height. With only a light unit to return, little effort is required to prepare for a new line. A new sheet may be inserted almost noiselessly and in about five seconds with practice. Pages may be reinserted accurately for correcting."—*Outlook for the Blind,* January 1950

Price of machine with dust cover	$80.00
Carrying case	10.00

D. Braillewriters, Shorthand

1. *Howe Press of Perkins Institution*

   Perkins Shorthand Braillewriter

   Uses tape 15/16 in. wide. Measures 6½ in. wide, 8 in. deep, 4½ in. high in folded position and 12¼ in. wide, 7 in. high in unfolded position with tape. Weighs approximately 4 lbs. 2 oz. Price f.o.b. Boston $54.00

   Paper available at 22¢ per roll (1.20 minimum)

2. *San Diego Lions Club*

   Banks Shorthand Braillewriter

   Writes on tape ¼ in. wide. Available through local Lions Clubs only.

SCRIPT WRITING BOARDS

In selecting pencils for blind children, it is necessary to consider the use that will be made of the written material. If the child is totally blind, a hard lead pencil should be used, as the writing will not smear. In the case of partially-blind children, a very soft lead is desirable, as the markings are dark and can be more easily read. If the vision is very poor, we would recommend that the teacher use the Listo or Scripto china marking pencil. It is also very helpful in crayon work, to consider the use of the No-Roll Crayon. Any effort made to provide equipment which will not roll out of the reach of the blind child is worthwhile.

The teacher must realize that the blind child must learn to write with pencil and that when he has learned to do this, reasons for his using the skill must be provided. He can label his papers in pencil, make lists of items for his parents or in connection with projects at school and certainly sign his own letters, whether written on the typewriter or in braille.

Writing boards vary in their usefulness and in relation to the coordination of the individual child. Teachers are urged to do reading on this subject and most of all, to be resourceful in developing their own methods of teaching the necessary techniques.

A. *American Foundation for the Blind*

Marks Writing Guide with Manual $2.25

The manual has been designed to teach blind individuals to write with a pencil. The development of the course and procedures in using the pencil and the board are discussed.

B. *Braille Institute of America*

C. *Howe Press*

TYPEWRITING EQUIPMENT

A. Typewriters—standard models in quantity to be determined by teacher and based upon meeting individual needs of pupils.

B. Typewriting Course—The American Foundation for the Blind has developed a recorded course in the teaching of typing entitled "Touch Typing in Ten Lessons." The American Printing House for the Blind is manufacturing and distributing it. The records, the inkprint text, and the suggestions for the teacher may be secured by writing directly to the American Printing House for the Blind. The set consists of the following:

1. "Touch Typing in Ten Lessons"—Talking Book edition—1952, American Foundation for the Blind—6 records and shipping container.
2. Braille Practice Book—selected exercises to accompany Talking Book edition, beginning with Lesson 5.
3. Edited Inkprint Edition.

MISCELLANEOUS WRITING EQUIPMENT

A. *American Foundation for the Blind*

Raised Line Drawing Kit $3.65

This equipment enables the blind person to draw or write and feel the lines on the top surface as the lines are made. The kit comprises a rubber-covered drawing board with hold-down clips for 8½ x 11 in. material, a ball point pen filled with a colorless lubricant and a package of special acetate sheets, which serves as the "paper".

Additional acetate sheets—package of 60 sheets $1.45

B. *American Printing House for the Blind*

Script Letter Sheets (raised) each 04

Writing Cards—narrow, wide or beveled, ea. 20¢; per 100 17.50

MATHEMATICS EQUIPMENT

It is important that the teacher recognize the braillewriter as an excellent mathematics device, particularly as the child reaches the upper elementary and junior and senior high school grades. It is also important that the teacher give special consideration to curriculum development by providing a program rich in number experience. Opportunity for number experience should precede number manipulation.

Teachers in various parts of the country have developed their own slates for the teaching of arithmetic to young children, but, because there are details about each of them which need further refinement, and the cost of manufacturing them in small quantities is too high, more work must be done in the future in attempting to combine the best features of all of them.

Following are listed the slates which can at present be purchased outright from a definite manufacturer.

A. Arithmetic Slates

1. *American Foundation for the Blind*

British Taylor Slate. 12 x 14; 24 x 36 openings, with tray for spare type. With one lb. type	$7.80
British Taylor Algebra Type. Used like arithmetic type. Provides 16 additional symbols	.75

2. *American Printing House for the Blind*

Cubarithm Arithmetic Slate: semi-rigid vinyl type frame (employing braille cubes; can also be used with type—new style, and as a peg board—new style). 8½ x 7 in.; 16 x 16 cells, ⅝ x ⅝ in.; red color.	
Frame only	2.07
Braille type cubes (minimum type for each frame, 150 cubes). Cubes ⅝ x ⅝ in.; hard yellow vinyl plastic.	
Per set	2.57
24-point copperplate gothic type (minimum type for each frame, 15 sets each Arabic numerals from 1 to 9 and 0—150 type). ⅝ x ⅝ x ⅞ in.; hard yellow vinyl plastic.	
Per set	2.57
Taylor Arithmetic Type Slate: (Stainless steel: 12 x 7½ x ⅝ in; 24 x 18 cells) Shipping weight 3 lbs.	6.63
Taylor Arithmetic Type. (Minimum type for each frame, 1 lb.) Shipping weight 2 lbs. Per lb.	3.07

3. R. H. Brannan, 9 Lorraine Road, Summit, N.J.

Brannan Cubarithm Slate

This is a bakelite board measuring 9 x 9 x 7/16 in. This provides 16 columns of 16 figures each. Cubes which are supplied with each slate fit into rectangular openings in the board. Standard braille numerals occupy 5 sides which enables one to set down any of the 10 symbols. For example, the 2-dot side may be set to indicate either 2 or 3. The diagonal 2-dot side can be set to indicate either 5 or 9. The 3-dot side can be set to indicate 4, 6, 8 or 0. The single dot side is offset to one corner so that 3 manipulative symbols can be employed. The 6th side has the letter "O" which provides for an additional 4 symbols which the student may employ as he likes. $6.00

B. Miscellaneous Mathematics Equipment

1. *American Foundation for the Blind*

Draughtsman's Compass—High quality, die-cast aluminum compass with ball point pen tip for use with Raised Line Drawing Kit. (*See* Miscellaneous Writing Equipment) Four-inch arms. Extra tips for conversion into 8 inch dividers. Screw adjustment $3.65

Graph Marking Slate—For use with the Raised Line Drawing Kit. Goose neck slate has 24 cells for writing upright braille with a hollow stylus. Measures ½ x 10 in. Braille dots appear at each inch, and the cells appear at each quarter-inch. Nickel plated. With hollow stylus. May be used both as scale and straight edge $2.10

Protractor—Transparent, semicircular protractor with three inch radius and six inch pointer, pivoted at the protractor's center. Single braille dots at each five degrees, with double dots at each ten, and triple dots at 45, 90 and 135 degrees. Not for close measurements . . . . $ .60

Slide Rule—A circular slide rule for doing multiplication, division and for taking roots. Pressed in plastic, a logarithmic "C" scale is embossed around the outer edge with large embossed Arabic and braille numerals. Pointers are of transparent plastic. The two pointers on top can be clamped together so that they move at the same time. Pointer "A" is set at "1", and pointer "B" is set at the multiplicand. The two are locked together and when pointer "A" is moved to the multiplier, the answer is indicated at pointer "B". A third pointer, rigidly attached on the back of the rule to pointer "A" enables the operator to find roots by means of a linear scale $1.95

2. *American Printing House for the Blind*

Graphic Aid for Mathematics (for the construction of mathematical figures and graphs). (Board 18 x 19 x 1 in., accompanied by set of 3 flat spring wires, 14 plastic-headed push-pins and a supply of rubber bands).

Sold in complete sets only $8.15

Mitchell Wire Forms with Matched Planes and Volumes (set of 15 solids, 11 planes, and 24 wire frames designed to illustrate the volumes, planes and outline forms commonly found in geometric problems, with corresponding figures in all three forms built to the same scale—cube is 3 x 3 x 3 in.). (Volumes made of hard wood brightly painted in various colors; planes made of wood composition painted in colors corresponding to those of their respective volumes; wire outlines fabricated from 1/8 in. cadmium-plated steel wire).

Sold in complete sets only $35.55

3. *Howe Press of Perkins Institution*

Compasses, foot rules, protractors, tracing wheels, yardsticks, etc. Consult catalog.

GEOGRAPHY EQUIPMENT

A. Braille and Embossed Maps

1. *American Foundation for the Blind*

Embossed maps of the world made of a special paper are shellacked to extend their life. The set comprises fourteen maps. They are marked with braille symbols to correspond with a braille key which is furnished with the set. Each map measures approximately 15 x 19 inches. Europe, North America (including Central America), Asia, South America, and Africa are represented by two maps each, one topographical and one political. The remaining are political maps only, covering the Middle and Far East and Australia.

Furnished in sets only $7.00

2. *American Printing House for the Blind*

Hard Rubber, molded, dissected, relief map—United States only, with braille identifications in margins—19¼ x 31¼ in.

Cost $125.00

Dissected wooden relief maps; states or countries enameled in various colors, large cities and capitals indicated by different kinds of nail heads.

Cost . . . . $230.00 and up

3. *Howe Press of Perkins Institution*

Braille maps.

4. *Illinois Braille and Sight Saving School,* Jacksonville, Illinois

Braille maps.

B. Relief Maps

1. *Creative Playthings,* 5 University Place, New York, New York
   A firm rubber relief map of the United States, cut jig-saw fashion along state lines. The overall dimensions are approximately 30 x 40 in. Vertical scale exaggeration appears to be kept uniform, so the mountain ridges—the Sierras and the Rockies, for example—are not as sharply distinguished as they have been on some earlier maps, but a more realistic picture can be gleaned as a consequence. Price is below $15.00.

2. *Sifo Novelty Company,* 353 Rosabel Street, St. Paul 1, Minn.
   Jig-saw maps—substantially made relief map, cut along state lines, of 3/8 in. plywood, measuring about 30 x 40 in. States are painted in brilliant contrasting colors. Details may be added to states with C. V. H. Relievo Paint, or with brads, tacks, etc.

In cardboard box about	$7.00
In wooden box about	10.00

3. Standard maps may be adapted to the use of the blind. A source of such standard maps is the Denoyer-Geppert Company, 5335 Havenswood Avenue, Chicago, Illinois.

C. Globes

At the present time no definite information is available regarding the existence of relief globes, although both the American Foundation for the Blind and the American Printing House for the Blind are exploring possibilities of making them available. A satisfactory substitute, however, may easily be constructed by parent or teacher, using a standard globe and marking features with C. V. H. Relievo Paint. Markings may be distinguished by sprinkling the paint, while wet, with flock, lustre beads, etc. Thus, the continental outlines might be left smooth, mountains sprinkled with lustre beads, and so on. As examples of a source of standard globes we recommend A. J. Nystrom & Company, 3333 Elstron Ave., Chicago, Illinois.

TOYS AND GAMES

American Foundation for the Blind

Bingo Masterboard

These boards, together with call numbers, are provided for those who do not already have suitable arrangements. Three boards, similar to the regular bingo boards, are mounted one above the other to provide 5 columns of 15 numbers each. The call numbers consist of green wood blocks, fitting into the openings, with the braille and ink-print numerals on plastic, which is attached to the blocks $4.70

Block Puzzle	.60

Bottoms Up	1.15
Carrom Bagatelle	10.00
Checker Board with Checkers	.30
Pocket Checkers	1.20
Chinese Checkers with Board	3.10
Cribbage Board	2.10
Goal	1.10
Imma Whiz (Multiplication & Division or Addition & Subtraction)	1.35
Braille Dominoes	2.30
Parcheesi	2.35
Bingo (Individual)	.75
Rook	1.10
French Chess Set	4.70
Hi-Q Puzzle Peg	.65

American Printing House for the Blind

Constructo Set No. 1

An educational toy consisting of various lengths of hardwood (with holes bored at regular intervals) and a quantity of wooden nuts and bolts. This device is similar in design and purpose to the metal erector sets which have been available commercially for many years, but is of wooden construction and much larger in design to enable the blind child to handle the pieces effectively. Set #1 consists of the following material packed in a wooden storage box 8 x 11 x 33 in.: 8 wooden lengths ¾ x 2 x 30 in.—8 wooden lengths ¾ x 2 x 23 in.—10 wooden lengths ¾ x 2 x 16 in.—15 wooden lengths ¾ x 2 x 9 in.—6 right angle joints 2 x 2 x 2⅞ in.—4 right angle joints 2 x 2 x 9 in.—50 wooden bolts ⅝ in. diameter, 4 in. long. Shipping weight 45 lbs. $35.00

Imout Game

An educational game designed for drill in the quick recognition of fractions of equal value. Game consists of 20 corrugated boards (6 x 9½ in.) covered with heavy glazed paper on which have been printed in both braille and large type form, five columns of fractions, five to a column. The columns are headed with the five letters of the word "IMOUT" and holes have been punched in the center of each fraction in each column for the insertion of small pegs. The game is played in a manner similar to bingo. A box of 150 cardboard squares printed in braille and large type with one of the letters of the word "IMOUT" and a fraction is provided for drawing. As each square is drawn and read aloud, the player consults his card for the same fraction or one of equal value, under the specified letter heading. If he finds this, he inserts a peg in the proper hole. To win, a player must have five pegs in a row, horizontally, vertically or diagonally from one corner to another. The set consists of: 20 cards (6 x 9½ in.); 150 squares for drawing (in a box); 1 box of approximately 120 pegs; 1 extra box to hold squares as they are drawn. Shipping weight 6 lbs. $5.75

SEWING AIDS

American Foundation for the Blind

Handy Magnet	$ .25
Hem Gauge	1.90
Needle Threader—Witch	.45
Wire Loop Needle Threaders (3)	Free
English Self-Threading Needles (2 pkgs.)	.15
German Self-Threading Needles (Pkgs. of 6)	.10
Tape Measure	.65
Stitch Gauge	.60
Wink Needle Threader	.55

MISCELLANEOUS EQUIPMENT

American Foundation for the Blind

C. V. H. Relievo Materials

Tubes of plastic paint which may be transferred to glassine needle cones for applying raised lines to paper, glass, leather, etc. Raised lines dry in about two days, remaining flexible. Textures may be varied by sprinkling while wet with glass lustre beads or rayon flock. Maps, games, certain blueprints, etc., may be converted for touch reading with Relievo; and templets may be made over which checks or forms are laid so that the lines can be felt through the paper.

Relievo Kit—Includes 3 tubes paint, cones, lustre beads and instruction chart	$ .95
Relievo Paint—Studio tubes, 2 x 11 in.	4.90
Cones—For applying paint, envelope of 12	.15
White Lustre Beads—Envelope	.15
Rayon Flock—Envelope	.15

Liessens Music Writer

A heavy tempered Masonite board with paper holder, and posts to tilt it forward; a nickel-plated stencil which moves back and forth in the frame. The stencil has cut-outs for drawing in the clefs, crescendi and decrescendi symbols, time signatures, and words of texts or phrase indications. The remainder of the writing is accomplished by a "main slot" at the center. This is smooth along its right edge and has twenty-one half circles cut along the left edge, and the top side of the right edge is notched opposite the junction of each two half circles. A note is made by drawing in a half circle, and finishing the circle freehand. If the note is less than a half note, the circle is blackened before drawing the stem. The staffs (which are marked by sets of braille dots) are drawn with the stencil against the bottom of the frame. Notes drawn with the stencil against the bottom will be on the lines. Notes drawn with stencil against the top of the frame will be in the spaces. Sharps, flats, naturals and all other symbols, may readily be drawn by means of the stencil, once a thorough knowledge of notation has been acquired. Mastery of the device is a matter of practice, but writing speeds of twelve minutes a page are attainable. Measures 11½ x 12½ $10.00

Paper Punch

The Presto-All-Purpose Punch is a convenient device for perforating braille paper for mounting in notebooks. Three movable punches are mounted in slots so that they may be spaced to fit various notebooks. The center punch may be removed for two-ring-binder notebooks. A hinged cover is pressed down to operate all the punches simultaneously. A guide is provided at the left of the device for accurate placement of the paper $2.85

Timer

"Mark-Time" Timers are available in five different models. All are mechanically operated. Those with thirty minute capacity are marked with a single braille dot at each minute and double dots at every five minutes. The sixty minute or sixty second models have single dots at each 2½ divisions, two dots at each five divisions and triple dots at fifteen, thirty and forty-five. Some models ring a bell at the end of the desired time interval. Others turn off a switch, disconnecting any associated piece of electrical apparatus. Switches will handle about 1200 watts.

Bell Ringing Models:	30 Minute	$3.25
	60 Minute	3.25
	60 Second	3.25
Switch Models:	30 Minute	5.30
	60 Minute	5.30

American Printing House for the Blind

Clockface with Braille Notation

This is an educational appliance designed for teaching blind children to learn to read time. It consists of a metal face, with movable hands geared in the regular manner (but without any driving mechanism), mounted in a black plastic frame 6½ x 6½ x 1 in. overall in size. The twelve numbers are in embossed form in both braille and inkprint, the braille numbers being on the inside rim of the plastic case immediately outside the metal face, while the inkprint Arabic numerals are embossed on the clock face itself in figures about ¾ in. high. The hour hand follows the minute hand in proper sequence, as the latter is moved.

Price, including insurance and postage in the United States $1.51

Audio Aids

The intelligent use of audio aids is of great importance. Excellent use of city school system libraries and the loan libraries in audio-visual aid departments of state universities, has been made by some of the schools and special classes. The teacher can use the radio for important educational programs quite successfully, and might make recordings of these programs for later use in the classroom. Effective use of the audio aids can also be made by individual children through the use of headphones.

Learning by listening skills are very important to the success of the blind child in all of his activities. The good teacher can, by careful observation, check the content of material acquired through listening. It must be remembered, however, that it is quite possible to over-use audio aids. Blind children also need activity and the opportunity to develop through exploring new situations and understanding new experiences.

A. Headphones

American Foundation for the Blind

Trimm, 2000 ohm magnetic headphones with plastic covered headbands. Weighs slightly over 8 ounces. Equipped with phone plug to fit all Talking Book Reproducers $2.50

B. Talking Book Reproducers

1. *American Printing House for the Blind*

Model L I Talking Book Reproducer is a three-speed machine contained in a handy portable brown leatherette case 10" x 13¼" x 15¼" in size and weighs 22 lbs. The machine is designed to operate on the standard home lighting circuit of 110 to 120 volts, 60 cycle, alternating current. The power consumption compares with that of a 75-watt light bulb.

Three turntable speeds are provided—33-1/3, 45 and 78 RPM and selection of speed is made by a convenient lever to the left of the turntable. The other controls, volume, tone, and motor switch are on the motor board to the right, near the front.

On this model, the loudspeaker is in the lid, which is removable, thus reducing vibration when more volume is needed. The unit has a good low frequency or bass response, which so many readers prefer. It has a wide range tone control, and responds with natural reproduction and low distortion at average playing levels.

Price for 30 lbs. plus insurance and express charges (f.o.b. Louisville) $51.00

2. *Philadelphia Branch of the Pennsylvania Association for the Blind,* 100 East Price Street, Germantown, Pennsylvania
Three-speed Talking Books Reproducer with Astatic Pickup (2-needle—for 78 RPM and slow speeds) . . .

   Other models also available for special application. Write manufacturer, explaining specific requirements, for prices and recommendations.

3. *The Library of Congress, Division for the Blind,* Washington 25, D.C.

   The Library of Congress provides a suitable machine for the reproduction of Talking Book records through specified agencies for the blind (*See* p. 17).

C. Recorders

Recording has come to play such an important role in the education of the blind student that this brief survey has been drawn up to aid in the selection of equipment. It is stressed that the list is not exhaustive nor can any attempt be made to evaluate different models in terms of performance or durability. Inclusion or exclusion has been largely a matter of accessibility to information. There are four main types of recording systems in common home use:

1. Disc Recorders

   Standard disc recorders are designed to cut a groove from a lacquer coating on metal or paper base. This type of recorder is not often used for study purposes due to the high cost of discs and the relative difficulty of operation. Music students, however, see advantages in being able to make fairly adequate permanent recordings of material. Three grades of equipment are ordinarily sold—listing from the $165.00 price class to the $350.00 group, and then to professional equipment costing $1,000.00 and more.

2. Embossing Disc Recorders

   Embossing disc recorders offer a compromise. They employ thin, inexpensive plastic discs into which grooves are pressed rather than cut, by a rounded embossing stylus. This is the type of machine used mainly in dictation equipment of the electronic variety. Such dictation equipment usually costs from $300.00 to $500.00. It offers mainly ease of operation, low costs of discs, making permanent private recorded libraries feasible. Distribution is through local sales organizations who are usually equipped to reclaim used or spoiled discs at a fee by means of special erasing equipment.

The four best-known brands are Audograph, Dictaphone, Ediphone, and Soundscriber. The first and last have been most often used by blind students, although new developments may change that picture. Soundscriber has had special appeal since its records can be played with more or less success on certain Talking Book machines, as well as on many LP record players. It is, therefore, the model used by many volunteer recording groups working for the blind.

The *AP6 Recorder* is a portable embossing disc recorder, put out by the American Foundation for the Blind to emboss recordings on the Soundscriber type of disc. It makes 12-minute recordings on each side of a 5⅞ inch disc. This makes the recording cost amount to about 25 cents an hour. Inputs are provided for microphone and radio-phono. An output jack is provided for external speaker. Microphone and 6-inch speaker included. Size: 16½ x 16½ x 9½ inches. Weight: 30 pounds. Net cost $102.00 plus shipping charges.

3. Tape Recorders

This recording is also done magnetically on paper or plastic tape coated with magnetic material. As with wire, the tape can be used repeatedly, erasure proceeding as new recordings are made. Most of the present day Tape Recorders are capable of recording two tracks on a single reel of ¼ inch tape. This means that after the reel has run through in one direction, it can be turned over and run through again to provide a second recording.

Among the so-called Home Tape Recorders, three different speeds are commonly used: 1⅞" per second, which is not ordinarily recommended for music, but which is adequate for voice unless there is reason for interest in fine shades; 3¾" per second, which is adequate for music (for reference purposes) but will not reproduce the finer overtones too well; and 7½" per second, which does quite well for professional music students, although, for very fine nuances still higher speeds are used.

In terms of time, the following chart may be helpful:

		5" Reel	*7" Reel*
1⅞" per second	Single Track	1 hr. 4 min.	2 hrs. 8 min.
	Dual Track	2 hrs. 8 min.	4 hrs. 16 min.
3¾" per second	Single Track	32 minutes	1 hr. 6 min.
	Dual Track	1 hr. 4 min.	2 hrs. 12 min.
7½" per second	Single Track	16 minutes	32 minutes
	Dual Track	32 minutes	1 hr. 6 min.
15" per second	Single Track	8 minutes	16 minutes
	Dual Track	16 minutes	32 minutes

In this list professional and more expensive models have not been included. In most instances, discounts can be secured through the American Foundation for the Blind on the types listed, as well as on some others. These may reduce the cost as much as a third, exclusive of shipping costs. Prices are as of May 1, 1954. Discounts can also be arranged on tape and accessories.

Brush Soundmirror.—(Brush Electronics Co., Cleveland 14, Ohio) Portable, dual track recorder with tape speeds of 3¾ and 7½ inches per second. Fast forward and rewind. Includes microphone and RCA accordion cone speaker. Radio-phono and microphone inputs. Jack for external speaker. 14½ x 16-3/16 x 9⅜ inches. Weight 33 pounds. List $289.50

Crescent Tape Recorder.—(Crescent Industries, Inc. 5900 W. Touhy Ave. Chicago 31, Illinois.) Portable, dual track recorder for *either* 3¾ or 7½ inches per second. Fast forward and rewind. Microphone and radio-phono inputs. High impedance output for coupling to external amplifier. Mike and speaker included. 8⅝ x 10¾ by 11½ inches. Weight 20 lbs. List $99.50

Cub Corder. (Ectro, Inc., Delaware 1, Ohio.) Completely self-contained, battery-operated dual track recorder, dual speed (3¾ and 7½, or 1⅞ and 3¾). Fast forward and rewind. Power supply, re-chargeable wet cells and dry batteries. Instantaneous playback through microphone. Size 12¼ x 13¼ x 5⅝. Wt. 12⅞ pounds. List $295.00

EKO Tape. (Webster Electric Company, Racine, Wisconsin.) Portable, dual track recorder with speed on either 3¾ or 7½ inches per second. Fast forward and rewind. Input for microphone and radio-phono. Output jack for external speaker. Microphone and 5 x 7 inch speaker included. Manual or foot switch can be supplied. Wt. 28 pounds. List $225.00

Magnemite. (Amplifier Corporation of America, 396 Broadway, New York 13, New York.) Completely self-contained, battery-operated, with spring driven motor. Can be played back through headphones or external amplifier. Wind every 15 minutes for 1⅞″ speed, 7½ minutes for others. 11 x 8 x 5 inches, weighs 10-15 pounds. Dual track. 610-B, 1⅞″ per second; 610-C, 3¾″ per second; 610-TD, 7½″ per second. List . . . . $225, $255, $275, respectively

Pentron Recorder. (Pentron Corporation, 221 East Cullerton Street, Chicago 16, Illinois.) Portable, dual track, dual speed recorder (7½, 3¾ inches per second). Inputs for microphone and radio-phono. External speaker and headphone outputs. Microphone and 6″ speaker included. Can be equipped with foot switch. Models list from . . . . $124.50 to 225.00

Re-Cord-O-Fone. (Bell Sound Systems, Inc., Columbus 7, Ohio.) Portable dual track recorder with tape speeds of 1⅞, 3¾ or 7½ inches per second in same unit. Rapid rewind. Includes microphone, 6″ speaker, inputs for microphone and radio-phono. Headphone monitoring jack. 16″ deep, 8½″ high, 15″ wide. Wt. 33 pounds. List $186.45
AC only.

Revere Recorder. (Revere Camera Company, 320 East 21st Street, Chicago 16, Illinois.) Portable, dual track recorder, available in 3¾ or 7½ inch per second speeds. (A 1¾ inch speed has also been offered at one time.) Microphone and 6 by 9 inch speaker included. Wt. 30 pounds. Can be equipped with foot switch. List $199.50

Tape Recordio. (Wilcox-Gay Corporation, 385 Fourth Avenue, New York 10, New York.) Portable, dual track, dual speed recorders (7½, 3¾; or 3¾, 1⅞ inches per second). Inputs for microphones and radio-phono. Jack for external speaker. Fast forward and rewind. Keyboard control for all recording functions. Microphone and 5 x 7 inch speaker included. Size 12 x 14 x 17. Wt. 23 pounds. List $179.95

Web-Cor Recorder. (Webster-Chicago Corporation, 5610 Bloomingdale Ave., Chicago 39, Illinois.) Portable dual track recorder with speeds of 3¾ and 7½″ per second. Records or plays in both directions, without reel turnover. Fast forward and rewind. Two recording heads and two motors. Input for microphone and radio-phono. Output for external speaker. Microphone included. List one speaker (Model 2010) . . $207.50
Three speakers (Model 2030) 239.50

4. Wire Recorders

The recording is done magnetically on spools of wire. The wire may be used repeatedly, the earlier material being erased as new material is recorded. While wire is being successfully used by many blind people, the majority seem to prefer tape, discussed above. The main reason is that wire is somewhat more difficult to unsnarl or repair should breaks occur. It is also more difficult to detect when the wire comes loose from the reel or when it becomes tangled with the mechanism. For these reasons wire recorders are not discussed.

Magnifiers

The following list of magnifiers with brief descriptions of their use is based on limited experimentation on the part of the Technical Research Department of the American Foundation for the Blind. These magnifiers, with two exceptions, may be secured through the American Foundation for the Blind. The list does not include a complete coverage of commercial magnifiers, but simply represents those we have found successful for use with partially-blind individuals.

A. For Reading

Adisco Magnifier

This has a 1⅞ inch lens system mounted on a barrel into which a light is introduced from a flashlight or electric lamp. It appears to give about 7 or 8 power of magnification although sold as a 5 power glass. It has been found extremely useful to many with opacities, retinitis pigmentosa, and other disabilities leaving visual acuities of about 10/200 or better. Available either with flashlight only or with flashlight and plug-in attachment.

Battery only	$6.00
Combination model	9.85

Bausch & Lomb Folding

Pocket Magnifiers have proved popular with many, especially for occasional use. Four models are handled giving total magnifications of 6, 8, 10, and 20 powers. The first three models have two lenses which may be used separately or in combination and the last has three.

6 power	$2.30
8 power	1.85
10 power	1.75
20 power	2.45

Burton Fluorescent Magnifier

This 3 power glass is *not handled* by the American Foundation for the Blind, since it has not proved useful to many with much under 20/200 vision. It can, however, be used with Plano Convex magnifier, described below, by people who, because of central losses, require good fields. Two 4 watt fluorescent bulbs under a hood apply a strong light to the page. The lens (which is a section of a standard biconvex glass), measures about 2 by 4 inches. A desk stand model is available. The nearest distributor's address may be secured from the manufacturer, Burton Mfg. Co. 11201 Pico, West Los Angeles, California.

Cost $34.50

French Plano Convex Magnifiers

Supplied in diameters of 2, 2⅜ and 3¼. These give about two magnifications with great light intensity. They are designed to rest against the page and are of value primarily to people with peripheral sight since they give a wide field of intense illumination.

Cost $5.40

Magnifocusor Number 10

Magnifying prisms are mounted in a device to be worn like an eye shade. It gives about 4 diameters of magnification and is helpful to people with between 15 and 20/200. For many of these, however, the design cuts out unwanted ambient light and may provide binocular sight.

Cost $8.00

Megascope Projection Reader

This is an opaque projection device giving either 25 or 12 diameters of magnification on a 9½ x 8½ inch screen. The material to be read or examined (books, magazines, newspapers, coins or other objects) is placed, face down on a transparent plastic platform above the screen. The platform is then controlled by a bar across the bottom of the device, giving 6 inches of lateral motion and about 4½ inches in the other direction—enough to scan the average line and over half the vertical extension on a page. At the high magnification, the field covers a little under ½ inch, and, at 12 diameters, not quite an inch of text.

The contrast is usually sufficient to permit reading in a normally illuminated room, and offers an opportunity for group reading. While most experience with this machine has been among adults, there is evidence that some children could acquire the necessary operating skills when sufficient motivation exists, and that (apart from use as a reading aid) much value might be developed in using it to expand visual experiences.

It is especially useful to those with macular losses, with marked (but not too severe) nystagmus, with spots of sight which are hard to bring to bear through smaller devices. It has also proved usable by persons with as little as 2/200.

Either strength $220.00
Combination model 247.35

Plasta Cataract Reader

A plastic aspheric lens on a plastic stand, weighing about an ounce. The lens is 1⅞ inches in diameter and has been very popular with cataract cases as well as others with not too severe impairments.

Cost $6.75

Ten-Diameter Magnifier with Light

Usually satisfactory for people with 10/200 or better, unless the sight is peripheral. The inclusion of a light source seems quite important for many eye conditions. Many people with very little visual acuity derive some benefits from this glass.

Cost $5.85

Tripod Magnifiers

7½ and 10 diameter lenses of low cost which may easily be fitted into inexpensive sunglass frames from which one of the lenses has been broken. In this application, the subject can arrange to sit in such a way as to have good illumination directly overhead, and the tripod legs serve as aids in focusing.

7.5 power $1.10
10 power 85

B. For Distant Vision

Eight-Power Prismascope

An eight-power monocular of compact design providing a 30 mm. objective. These are excellent for use at theatres, sports events, etc., and they are sold *directly to blind people* by DuMaurier Company, Elmira, New York.

Cost $9.95

Penscope

Six-diameter telescope of the size and appearance of a penlight flashlight. Despite the restricted field, many people find these invaluable for reading street signs, identifying busses, and so forth. They are mainly of value to people with between 10 and 20/200 vision.

Cost $6.50

Ten-Power Monocular

A very compact 10 x 20 monocular of Japanese manufacture, with coated lenses. It measures 3 inches long and about 1½ inches wide, weighing less than 3 ounces. It requires a very steady hand, but for those who can use it proves handy for long distance viewing. It will not focus at less than about 20 feet.

Cost $9.50

Devices and Equipment Found in General Supply Houses

Good equipment, perfectly suited for use in schools for the blind may often be found in commercial catalogs of general school supply campanies.

Suggestions Primarily for School Children

From the catalog of Edward E. Babb Company, 3304 Arch Street, Philadelphia 4, Pennsylvania, (Div. of Milton Bradley).

4208A. *Little Mechanic.*

This new, unusual, play period toy introduces the child to the realistic use of tools on nuts and bolts and acquaints him with their mechanical features. It provides, as well, valuable exercise in muscle and eye coordination, finger manipulation, selection and comparison. Slotted, hardwood construction creates a steady, sturdy table in which four holes are drilled, each with a countersunk thread. Wrench is nickel-plated and has two open ends, with handle and shaped into a blunt screw driver $2.50

4473C. *Ring Toss.*

A perfect indoor game of action and skill which can be played at the rear of the classroom, in a corridor or gym. Every pupil will enjoy the competitive thrills of Ring Toss. The two bases are made with interlocking cross pieces which hold the stakes firm and upright, thus providing a steady target. The rings are made of tightly woven soft rope $2.00

8039. *Cubical Counting Blocks.*

100 one-inch cubes in the six standard colors. Favorite of children beginning to count and helps them learn form and design $2.50

8064. *Geometrical Surfaces & Solids.*

Embraces the common surfaces and solids which are found in elementary geometry, together with a simple illustration of angles. There are 23 solids, 17 surfaces and 3 angles, the latter being represented by bent wires. Smooth sanded, hardwood pieces . . $10.00

9316. *Ten-Ten Counting Frame.*

A new counting frame patterned after our number system. 10 rows of 10 counters, so that it can be used in developing a simple, basic understanding of arithmetic. Pupils can easily visualize addition and subtraction combinations. Reasoning instead of rote memory is brought into play. Ten-Ten gives visual substantiation to the teaching of number combinations. Complete with instructions . $2.00

9318. *Hennessey Building Blocks.*

Castles, trains, wagons—all the creative desires of children at play—are easily realized with Hennessey Building Blocks. Pieces provide a varied selection of sizes and shapes for the individual child or for a group activity. Hennessey Building Blocks stimulate muscle and eye coordination and make your free play period meaningful, purposeful. Solidly packed in a strong, attractive, portable basket. Hennessey Blocks are a valuable addition to any Kindergarten or primary grade.

62 piece set	$25.00
121 piece set	50.00

1L, 2L, 3L. *Lincoln Log Set.*

Lincoln Logs are made of seasoned hardwood, stained brown, and are waxed and polished to give them a smooth and durable finish. Used for building log cabins, forts and trading posts. Especially valuable in connection with American History teaching and free play period activities.

1L. 79 piece set	$2.00
2L. 131 piece set	4.00
3L. 177 piece set	6.00

From the catalog of Brodhead-Garrett Company, Cleveland 5, Ohio

115. *"Suede-Tex" Kit.*

This kit contains the following materials:

1 8-oz. can Brown Undercoat Adhesive
1 8-oz. can Green Undercoat Adhesive
1 8-oz. bottle Thinner for cleaning brush and thinning undercoat
1 3-oz. container Brown lustrous fibres
1 3-oz. container Green lustrous fibres
1 Applicator Brush
1 high velocity spray gun
. . . . $7.95

800. *Table Easel.*

A useful, inexpensive 18" x 20" table easel with several different angle adjustments. Can be used for reading as well as sketching or painting. With pencil ledge $2.00

From the catalog of Creative Playthings, 5 University Place, New York 3, N. Y.

A328. *Judy Clock.* (May have braille added)

A clock that simulates the motion of a real clock, illustrating basic clock hand motions. Large under-the-dial gears move when minute hand is turned. Minute hand has to go around one full turn to make the hour hand go from one number to the next. It is made of sturdy presswood and stands 14" high, gears are of vulcanized fiber. Face is legibly painted with large numbers. The only clock for the schoolroom. 4 lbs. $2.98

A334. *Giant United States Map Puzzle.* (May have braille added)

A Creative Plaything exclusive. 30 x 40 inches. U. S. map cut along state lines and brightly lacquered in five different colors for exciting geography play. Constructed of heavy 3/8" plywood and packed in a sturdy wood box with cover. It will take classroom abuse and become a permanent geography teaching aid. Four-lined rhyme on each state converts the map into an identification game by giving children clues to the states in the form of its principal city, industry, when admitted to the Union, capital nickname or its history. 14 lbs. $9.95

In cardboard box 6.95

T246. *Coordination Raised Form Board.*

This puzzle board consists of 8 raised geometric forms and colors which are interchangeable, to challenge a child's color and shape discrimination. Approximately 3 lbs. $2.50

NOTE: As this publication is being prepared, some new material is available through Creative Playthings, which may have significance in the education of blind children. The following quotation will give some ideas concerning the nature of the material:

> "*Playforms.* . . . In design they emphasize shape and form rather than 'cute and exacting detail' so typical of toys. Facial features in people and animals are deliberately eliminated to give full play to a child's imagination. In construction, most of the toys are carved out of solid blocks of lumber rather than assembled with nails and screws. In finish, they avoid color and paint but stress natural graining and colors of fine lumbers and smooth textures for sensory experience. 'The playthings', said Frank Caplan, co-director of Creative Playthings, 'fulfill a long cherished plan to make available the kinds of play material which educators and psychiatrists term "unstructured". Such playthings come to the child sufficiently abstract and without adult imposed concepts and details to permit the child to create his own character, his own play world. The toys surround the child with a living and active form of art education.' The sculptured play materials, although approved art objects, are priced for toy merchandising."

From the catalog of the Charles William Doepke Manufacturing Co., Inc., Rossmoyne, Ohio

No. 2006. *Adams Road Grader.*

Miniature of huge diesel equipment. Scraper blade adjust three ways. Steerable knee-action wheels. Tandem action rear axles. Yellow baked enamel finish $13.95

No. 2007. *Unit Crane.*

All-steel model of Unit Mobile Crane. Lifts astonishingly heavy loads. Crank-controlled boom rotates with cab. Front wheels steer. Orange enamel finish. (Clam shell furnished) $13.95

No. 2009. *Euclid Dump Truck.*

Heavy steel model of monster Euclid Bottom Dump Truck. Tractor uncouples to tow other toys. Steerable front wheels with 3 point suspension. Orange enamel finish $13.95

No. 2010. *American La-France Pumper.*

With the new pumper, a complete fire department is available. Standard equipment includes auxiliary ladder, fire extinguishers, bell, rubber hose on reel and hard suction hose. Hose attaches to pump operated by pressure water tank, actually shoots stream of water. Fire engine red enamel finish $15.95

No. 2011. *The Heiliner-Scraper.*

A sturdy, triple-duty earth mover—acclaimed the best addition to the Model Toy Line. A new, related item, it tows other toys and can be towed. The heaviest, strongest toy built to date. Brilliant red enamel finish $15.95

No. 2012. *Caterpillar D6 Tractor and Bulldozer.*

This is built to look and work just like the real machine. The scraper blade adjusts from the driver's seat and treads operate independently for sharp turns. There is a realistic cast "Diesel" engine and a draw bar for towing other Model toys. Red and yellow enamel finish $12.95

No. 2014. *American La-France Aerial Ladder Truck.*

In steel and aluminum. Sturdy ladder, on rotating base, elevates, extends nearly four feet. Front wheels steer. Two auxiliary ladders are standard equipment. Fire engine red enamel finish . . $19.95

From the catalog of New York Scientific Supply Company, Inc., 28 West 30th Street, New York 1, New York

Rubber Biological Models

LM314. *Trunk with Head, Female.*

Dissectible ventrally and dorsally as in LM306 but showing in addition to standard human anatomy model (containing 341 parts), 1. pelvic cavity in greater detail, 2. uterus, bladder and rectum, in one unit (with ovaries and fallopian tubes attached), removable and dissectible sagittally; (course of egg from ovary through fallopian tube into uterus can easily be traced); 3. half of face removable; 4. mammary gland dissectible for structure in hemi-section; 5. main ventral subcutaneous blood vessels on one side of abdomen. Shows also many other special features.

This model is recommended especially for nurses' training and women's hygiene courses, as well as for general courses where female anatomy is included in the curriculum. Total of 441 keyed parts represented. Rubber, upright on base $375.00

LM396. *Head.*

Median sagittal section. Detailed representation of the skull, cerebrum, cerebellum, spinal cord, cervical vertebrae, nasal cavity, larynx, tongue, palate, oesophagus, glands, sinuses, muscles, trachea, etc. 64 keyed parts represented. An excellent model for showing relationship of parts of the head. It is one of the most commonly used $17.50

LM501. *Eye.*

Enlarged 5 times. Structure of the eyeball the same as in LM491 (which is dissectible into 7 parts including the cornea, vitreous body, choroidea, and the crystalline lens. The insertions of the six muscles controlling the movement of the eyeball are shown, as well as the retina, iris, sclera, optic nerve, ciliary nerves and blood vessels. 23 keyed parts represented. Of rubber, on base . . . . . $28.50). In addition, it includes part of the osseus orbit, more of the optic nerve, and the tear gland. Shows the muscles in their complete course, with one of them removable. 25 keyed parts represented. Of rubber, on base $37.50

LM696. *Heart.*

Twice enlarged (model proper measuring 10 inches in height), dissectible into 4 parts. The walls of the ventricles open on hinges, showing the ventricular valves with their fine chordae tendinae. The model is separable horizontally through the auricles, giving an excellent view of the sigmoidal valves. The ramifications of the large blood vessels emanating from the heart are clearly shown, as well as part of the trachea. 36 keyed parts represented. Of rubber, on stand $39.50

LM751. *Digestive Organs.*

Entire digestive tract, natural size, including a section through the pharyngeal cavity and the cavity of the mouth. The liver is slightly raised so that the entire stomach, the gall bladder and duct, and the pancreas are all exposed to view. The coecum and the vermiform appendix are clearly shown. A very useful model for the study of digestion. 32 keyed parts represented. Of rubber, on plaque $34.50

LM826. *Human Skeleton.*

Entire skeleton, half natural size, skull and appendages removable, bones articulated so as to show natural movements at important joints. Supplied with stand. Shows very adequately all of the important features of the human skeleton, at half the cost of a natural preparation. 88 keyed parts represented. Of rubber . . . $98.75

Taxidermic Preparations

G130.	*Common Tern*	$22.50
G154.	*Canvasback Duck*	35.00
G200.	*Little Blue Heron*	35.00
G270.	*Bobwhite*	25.00
G352.	*Red Headed Woodpecker*	20.00
G360.	*Ruby-throated Humming Bird*	17.50
G396.	*Bluebird*	17.50
G410.	*Crow*	25.00
G444.	*Meadow Lark*	17.50
G590.	*Bird Set, 21 Specimens*	Approx. 300.00
G670.	*Armadillo*	35.00
G672.	*Bat*	22.50
G688.	*Rhesus Monkey*	60.00
G700.	*Flying Squirrel*	25.00

From the catalog of the Northfield Specialties Company, 215 Madison Street, Northfield, Minnesota

Study Board.

This is a book rest which can be put up in front of the child to hold his book and thus help to minimize the strain in reading. Price per unit is $3.00. In lots of a dozen, f.o.b. factory, 40% discount.

From the catalog of Visual Specialties Company, 5701 West Vernor, Detroit 9, Michigan

Visualboard No. 5.

2 x 3 Ft. Best size for general schoolroom uses. Roll type for parcel post shipping. Shiping wt., 5 lbs. $7.50

Arithmetic Felt Cut-Outs.

Set #101 (size 14" x 18") Apple Tree with 12 Apples	$ .85
Set # 110 Christmas Tree & 12 Ornaments (6 different shapes)	.95
Set #128 Houses (6 red; 6 gold)	.70
Set #140 (Circles) Fractional Parts	1.10
Set #141 (Squares) Fractional Parts	1.00

Art Felt Cut-Outs.

Set #305 Art Forms	$ .75

Science Felt Cut-Outs.

Set #401 Domestic Animals (10)	$1.00
Set #410 Circus Animals (6)	.75

For children with very poor vision.

China Marking Pencils.

An excellently legible line may be made with either Listo or Scripto mechanical china marking pencils which may be purchased at stationery or art supply stores. The price of the pencil is on the order of 35¢ and packages of four replacement "leads" cost about 10¢. Scripto, in addition to black and colored leads, puts out also white, which may, in certain instances prove useful for writing on black paper. Many find that white on black is more legible than the reverse.

No-Roll Crayons.

Available from Milton Bradley Company, Springfield 2, Massachusetts, or their affiliates. Round crayons have a flat on one side to eliminate danger of the crayons' rolling from the desk. The Junior No-Roll Crayons are said to combine the strength and durability of pressed crayons with the brilliance of wax crayons. They may be used on paper, cloth or wood. No. 951 is an eight color assortment: red, orange, yellow, green, blue, violet, brown and black. The No. 952 is a 16 color assortment comprising, in addition to the foregoing, red-orange, yellow-orange, yellow-green, blue-green, blue-violet, red-violet, white and flesh.

Tru-Tone No-Roll Crayons are large (4 x ½ inch), unusually strong, and have the flattened side. They are said to give brilliant colors with a minimum of pressure and to be easily erased. No. 9157 consists of the same eight colors as the No. 951. No. 9196 comprises 16 colors: red, red-orange, orange, yellow-orange, yellow, yellow-green, green, blue, violet, red-violet, brown, black, turquoise blue, magenta, burnt sienna, and flesh color.

Toy Suggestions for Preschool Blind Children

Teachers of school-age blind children are often asked for suggestions which might help parents of very young children to select suitable toys. Due to the fact that there are many children of preschool age today, teachers may be contacted by parents who are planning for the future of even their blind infants. These parents may need help in enjoying the preschool years with their children. If they can recognize the importance of these years and learn to enjoy their children, they will be able to contribute much to their growth and development.

Sometimes teachers of blind children in the public schools can be helpful in pointing out to the parents of preschool children the importance of playing with their children. Often it is what the parent may do with a toy that is of far greater importance than the type of toy that may be selected because the child is blind. The very fact that teachers may set up lists of toys for blind children tends to overemphasize the feeling of difference in the minds of the parents, while, in reality the teachers wish to build up feelings of similarity with other children through constructive play experiences. It is also true, that all too often teachers of school age children have not had enough opportunity to observe preschool children to give adequate suggestions to parents of such children. For this reason, it is probably safer to encourage the parents to observe the young child at play and permit him to help them to select the toys which he likes best.

All children vary as individuals. Realization of this fact can be helpful both to parents and teachers in observing the play of each young blind child as he functions as an individual. His behavior has often been described as the way in which he tells us of his needs.

If the parents can be helped to understand that the preschool years which the child spends in his own home are the years in which his security and understanding of his environment are of prime importance to him, they may be able to postpone some of their anxiety concerning his future school years.

The following short list of toys for very young blind children representing items which can be found in all types of toy catalogs of regular supply houses, is submitted only for the value that it may have for teachers who may be called upon to talk with parents who want helpful suggestions. According to observation blind children have enjoyed playing with these toys. It is to be hoped that the teachers may talk from the list rather than submit it to parents. Parents can be encouraged to go to the toy stores, and to take their young children with them. They may also learn much from discussing the play experiences of children in the neighborhood with other parents.

The stock number and price of the starred items are quoted from the catalog of F.A.O. Schwartz Company, 745 Fifth Avenue, New York. All other items should be found in most any general catalog of toy supply houses as well as in many department stores or other stores in the various local communities.

For the Very Young Child

Balls of various kinds
Cradle Gym
Measuring cups
Rattles of various kinds—light in weight, attractive, pleasing in sound, easy to hold.
Rubber blocks—each with a bell inside
Squeaky rubber toys
String of wooden spools

For the Toddler

Canvas baby swing
Karillon blocks (#3-17, $3.00)*
Keys on a ring
Musical rocking chair (#60-44, $12.95)*
Nested boxes
Play pen
Small aluminum pie plate and spoons
Small puncho
Sound balls—plastic (Playskool #90)
Wooden mixing spoons

For the Older Preschool Child

Advanced peg board (Playskool, #185)
Beads—large plastic
Beads—large wooden cubes and spheres
Bingo bed
Bonhop Play House (#22-281, $5.95)*
Busy-Kiddie (door-way) Gym (#6-31, $14.95)*
Cart or small wagon
Color cones
Friction-drive toys
Fruite Plate (#22-191, $2.00)*
Hopping kangaroo or bunny
Kiddie Drivette—steering wheel with seat (#7-48, $5.95)*
Large puncho
Nested plastic blocks (Pylox blocks)
Paper carton with rope handle—homemade
Pets—dog, canary, cuddly kitten
Plastic scissors
Playskool postal station (#19-106, $3.00)*
Rocking boat
Roll away—come back
Round peggy ball (Playskool)
Sifo form board—eight raised geometric figures
Sled
Steering Wheel—without seat (#17-364, $3.00)*
Tricycle
Wooden music box—with handle that turns

Kindergarten and Early Elementary

Bean-bag games
Billie and His Barrels (#4035, $3.00)*
Busy Kiddy Gym (#6-31, $14.95)*
Doll play and equipment
Everything on wheels ($1.00)*
Felt O'grams
Finger paint
The Fix-it Book ($1.00)*
Interlocking train
Kiddi Cog (#4091, $5.50)*
Kiddie Drivette—steering wheel with seat (#7-48, $5.95)*
Kiddie Klock (#4-93, $4.00)*
Kikit—skill game (#43-1, $10.00)*
Little Mechanic (#22-22, $2.50)*
McCall's Make-it Book ($2.95)*
Magnets
Marble game (#23-220, $4.50)*
No-roll crayons
Picker-Sticker (Blockshop—$1.50)
Plastic scissors
Plasticine
Puzzles—wooden insets
Ring Toss—rope rings and dowels (#21-25, $8.00)*
Ring Toss Set (#21-102, $8.95)*
Rocket Dart Game (#21-318, $7.50)*
Sand box and toys
Sewing cards—yarn and plastic needles
"Slinky"
Snap Blocks (#22-288, $3.00)*
Steering wheel—without seat (#17-364, $3.00)*
U.S. Map Puzzle (#3-5, $3.00)*
Wooden barrel to crawl through and play on
Wooden Dominoes—board (Creative Playthings, $7.95)

Appendices

Statements of the American Foundation for the Blind

THE EDUCATION OF THE BLIND CHILD OF SCHOOL AGE

The American Foundation for the Blind recognizes three types of education of blind children of school age:

1. Education in a public or private residential school for the blind.
2. Education with the sighted in public or private schools with a resource or special class teacher available during the entire school day.
3. Education with the sighted in public or private schools with itinerant teaching service available at regular or needed intervals.

In recognizing these types of education of the blind child of school age, the Foundation is recognizing the important and basic premise *that each blind child should be educated according to his individual needs and that not for a long, long time—if ever—will any one of the three types of education listed above eliminate the other two.* It is also realized that the changing needs of each individual blind child may require flexibility which will permit him to move from one type of program to another. In addition, the Foundation does not hesitate to state that it would like to see all three types available for blind children throughout the nation so that these children may be placed educationally according to the type best suited to meet their individual needs. The Foundation makes an even stronger plea for superior standards to be maintained in each type of education; it holds that the setting up and administering of any one of the systems is a very grave responsibility and that the welfare of the individual blind child must be the primary consideration in making educational placement. Intelligent placement of an individual blind child into the educational setting best suited to his particular needs is a serious decision not to be made by a single person or a single agency but by the pooled opinion of qualified persons each of whom brings his judgment to bear in the necessary deliberations. And in all of this it is wise to remember that a grave injustice is done if a blind child is placed in an educational setting that is being maintained by standards that are low in comparison with those held for sighted children in the same state or locality.

The Foundation has no hesitancy in stating that some blind children can best be educated with sighted children and that some blind children can best be educated in the residential school. The Foundation has even less hesitancy in stating that any system of educating blind children can be charged with moral guilt if it does not provide for enrolled blind children "an education according to their individual interests and aptitudes, at least *equal* to that which they would have received had they not been blind." This quotation is from the proceedings of the 1949 International Conference of Workers for the Blind held at Oxford, England, and is one of the most important statements on this subject since the turn of the century.

It is recognized that good systems of education of the blind may be expensive. However, the Foundation is more concerned that, whatever the cost, it should be an investment by society that will bring returns to society in the form of an adult blind individual who has been educated according to his individual needs and who can make his maximum contribution to society on that basis.

The foregoing statement of philosophy is not dictated by the American Foundation for the Blind; it is dictated by human parenthood and approved by eminent educators, psychologists, psychiatrists, theologians, social workers, etc.—all of whose combined opinion the American Foundation for the Blind recognizes as greater than any that could be arrived at by its small staff. But only time and the unfolding needs of each blind child will indicate the best educational pattern for each child. The Foundation sincerely hopes that all patterns will be available for practical consideration when the time for educational placement comes in the life of each blind child.

The American Foundation for the Blind is dedicated to the work of improving educational standards for all blind children in whatever type of program they are enrolled. The primary consideration is that the welfare of the individual blind child comes first—not that of the agency, the class, or the institution.

EDUCATING BLIND WITH SIGHTED CHILDREN IN PUBLIC AND PRIVATE SCHOOLS

Educating blind with sighted children in public and private schools has as its chief objective the social and cultural integration of these two groups of children. This program is set up in many instances by enrolling blind children in certain schools which provide a special program and a qualified teacher with special training in the education of blind children. This qualified teacher is usually assigned to a special room which may be a resource room, a combination study room and a classroom in which certain specific skills are taught. Such skills are braille reading and writing, the use of special equipment, and the mastery of certain skills of efficient living necessary to the success of blind individuals. Much of the guidance and general orientation of young blind students should stem from contacts with the teacher assigned to this special program. As soon as these pupils are sufficiently competent and secure in their physical surroundings, they should be enrolled in as many regular classes with seeing children as is possible considering their needs and potentialities.

This integrated program may be achieved by some children as early as the first grade in the regular classes. It is understood that when an excellent preschool service has been provided, most blind children can enter the regular kindergartens with seeing children with very little preplanning and supervision. It is important that blind children have frequent contacts and stimulating activities with their seeing schoolmates. If most of the skill subjects and general guidance can be provided in the special program, and if most of the other school subjects are provided through the regular classes, the school is offering an integrated program according to a cooperative plan. If the program of educating blind with sighted children operates on a segregated basis, it defeats the very purpose for which it was established. The single or segregated class limits the pupils' educational program to the initiative, enthusiasm, and experience of the teacher responsible for this program.

The teacher assigned to the educational program for blind children in a public school should be first of all a superior teacher of seeing children. The teacher's previous training and experience should be outstanding in general education and, if possible, additional training in related areas of special education should be encouraged. Upon this background of training and experience, this teacher should be required to learn braille and to master the tools and aids which blind children use in the educational process. If a superior teacher is assigned to an integrated program of educating blind children, it can be expected that satisfactory skill in curriculum adaptation and methods of procedure will be developed, and that excellent professional relations will be maintained with the other members of the teaching staff of the school which provides this challenging program. This teacher must receive adequate remuneration for the service which is provided, and if there is not a salary differential in favor of this program, there should be some other financial grant or fellowships to cover the cost of this additional training. This incentive is necessary in order to recruit excellent teachers for a program which challenges superior performance and expert public relations.

Legislative Provisions Concerning Education of Blind with Sighted Children

ACT TO PROMOTE THE EDUCATION OF THE BLIND

H. R. 4228—*45th Congress*

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the sum of two hundred and fifty thousand dollars out of money in the United States Treasury not otherwise appropriated, be, and hereby is, set apart as a perpetual fund for the purpose of aiding the education of the blind in the United States of America, through the American Printing House for the Blind.

SEC. 2. That the Secretary of the Treasury of the United States is hereby directed to hold said sum in trust for the purpose aforesaid; and it shall be his duty, upon the passage of this act, to invest said sum in United States interest-bearing bonds, bearing interest at four per centum, of the issue of July, eighteen hundred and seventy, and upon their maturity to reinvest their proceeds in other United States interest-bearing bonds, and so on forever.

SEC. 3. That the Secretary of the Treasury of the United States is hereby authorized to pay over, semiannually, to the trustees of the American Printing House for the Blind, located in Louisville, Kentucky, and chartered in eighteen hundred and fifty-eight by the legislature of Kentucky, upon the requisition of their president, countersigned by their treasurer, the semiannual interest upon the said bonds, upon the following conditions:

> *First.* The income upon the bonds thus held in trust for the education of the blind shall be expended by the trustees of the American Printing House each year in manufacturing and furnishing embossed books for the blind and tangible apparatus for their instruction; and the total amount of such books and apparatus so manufactured and furnished by this income shall each year be distributed among all the public institutions for the education of the blind in the States and Territories of the United States and the District of Columbia, upon the requisition of the superintendent of each, duly certified by its board of trustees. The basis of such distribution shall be the total number of pupils in all the public institutions for the education of the blind, to be authenticated in such manner and as often as the trustees of the said American Printing House shall require; and each institution shall receive, in books and apparatus, that portion of the total income of said bonds held by

the Secretary of the Treasury of the United States in trust for the education of the blind, as is shown by the ratio between the number of pupils in that institution for the education of the blind and the total number of pupils in all the public institutions for the education of the blind, which ratio shall be computed upon the first Monday in January of each year.

Second. No part of the income from said bonds shall be expended in the erection or leasing of buildings.

Third. No profit shall be put on any books or tangible apparatus for the instruction of the blind manufactured or furnished by the trustees of said American Printing House for the Blind, located in Louisville, Kentucky; and the price put upon each article so manufactured or furnished shall only be its actual cost.

Fourth. The Secretary of the Treasury of the United States shall have the authority to withhold the income arising from said bonds thus set apart for the education of the blind of the United States when ever he shall receive satisfactory proof that the trustees of said American Printing House for the Blind, located in Louisville, Kentucky, are not using the income from these bonds for the benefit of the blind in the public institutions for the education of the blind in the United States.

Fifth. Before any money be paid to the treasurer of the American Printing House for the Blind by the Secretary of the Treasury of the United States, the treasurer of the American Printing House for the Blind shall execute a bond, with two approved sureties, to the amount of twenty thousand dollars, conditioned that the interest so received shall be expended according to this law and all amendments thereto, which shall be held by the Secretary of the Treasury of the United States, and shall be renewed every two years.

Sixth. The superintendents of the various public institutions for the education of the blind in the United States shall each, ex officio, be a member of the board of trustees of the American Printing House for the Blind, located in the city of Louisville, Kentucky.

SEC. 4. That the trustees of said American Printing House for the Blind shall annually make to the Secretary of the Treasury of the United States a report of the items of their expenditure of the income of said bonds during the year preceding their report, and shall annually furnish him with a voucher from each public institution for the education of the blind, showing that the amount of books and tangible apparatus due has been received.

SEC. 5 That this act shall take effect from and after its passage.

Approved March 3, 1879.

The above law has been amended, from time to time, as follows: June 25, 1906 (making a permanent appropriation of $10,000 a year); August 4, 1919, providing for an annual additional appropriation of

$40,000, which provision for an annual appropriation was increased to $65,000 on December 22, 1927; $115,000 on August 23, 1937; and $250,000 on May 22, 1952, making the present total authorization $260,000. Through the 1954 fiscal year, not more than $185,000 has ever been appropriated by Congress for any year.

When the original law was passed, "public institutions for the education of the blind" consisted solely of residential schools. Following the establishment of the first day school classes in city public schools in 1900, a need for a broader interpretation of the Act became apparent. On January 30, 1912, an opinion was handed down by the Department of the Treasury (under which Department the Act was then administered), in response to a request from the Public Day Schools for the Blind of Milwaukee, Wisconsin, stating that these classes were entitled to share in the free distribution of materials under the Act. This ruling was extended to cover the classes for the blind in public schools throughout the country, and the superintendent of each school system conducting such classes for the blind is an ex-officio Trustee of the American Printing House for the Blind.

The administration of the Federal funds provides, in effect, that the American Printing House for the Blind will act as a channel through which the United States Government serves the individual states. On the first Monday in January of each year, a registration is taken of the pupil populations of all the public educational institutions for the blind including public day school classes in the country and its territories.

A quota allotment for each school and class is set up on the first day of July of each year determined on a per capita basis by the registration taken the previous January. These allotments are given to the individual schools and classes in the form of credits on the books of the Printing House, and the school superintendents are then permitted to order such books and materials as each may desire in amounts equal to their allotments for the fiscal year July 1-June 30. Cash payments are also accepted from the schools. The Printing House itself, however, cannot tell any school what it may purchase from its published catalogs, and any school superintendent can order special materials manufactured for the use of his pupils within the limitations of the facilities of the Printing House and the quota credit or cash money his institution may have to pay for such books or appliances.

LIBRARY OF CONGRESS INFORMATION LETTER No. 8 (*Excerpt*)

"On July 3, 1952, H. R. 7231 became Public Law 446 by the amendment of the Act entitled *An Act to Provide Books for the Adult Blind,* as follows: 'Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, the first sentence of the Act of June 13, 1944 (58 Stat. 276), is amended by striking out the word *adult.*'

"Blind children are now eligible for Talking Book and braille book service. Each Talking Book machine lending agency, therefore, should take such measures in the loan of machines as are necessary to insure that an adult member of the family or household, or an adult person closely associated with the juvenile borrower in a school or residential institution, assumes responsibility for safeguarding the machine and the Talking Book records.

"Since the Appropriation Act for the current fiscal year does not provide an extension of the book program, only those books in existing collections suitable for juvenile readers will be immediately available to blind children. However, during the year the Library of Congress hopes to arrange for the distribution of a few additional juvenile titles as funds become available."

LIBRARY OF CONGRESS INFORMATION LETTER No. 9 (*Excerpt*)

"The age at which a minor may become eligible to receive the loan of a Talking Book machine and library service has been established at 5 years."

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